

ABSTRACT OF THE DISCLOSURE

A distributed arbitration scheme includes arbiters with each agent. The arbiters
5 receive request signals indicating which agents are arbitrating for the bus. Additionally,
the agent currently using the bus broadcasts an agent identifier assigned to that agent.
The arbiters receive the agent identifier and use the agent identifier as an indication of the
winner of the preceding arbitration. Accordingly, the arbiters determine if the
corresponding agent wins the arbitration, but may not attempt to calculate which other
10 agent wins the arbitration. In one embodiment, the arbiter maintains a priority state
indicative of which of the other agents are higher priority than the corresponding agent
and which of the other agents are lower priority. In one implementation, the bus may be a
split transaction bus and thus each requesting agent may include an address arbiter and
each responding agent may include a data arbiter.

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